

**STUDIES OF DASYTIDAE NO. 1: NEW SPECIES
OF *PRISTOCELIS* (COLEOPTERA)**

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The family Dasytidae is among the ten largest families of Coleoptera in the United States. It is especially prominent in the arid or semi-arid regions west of the 100th meridian, where almost all of the 325 American species occur.

Many undescribed species are present in my collections. A number of these are in the genus *Pristocelis* LeConte, only two of which have been collected in large enough numbers in one locale to justify their recognition as a population of a stable species.

***Pristocelis irwini*, new species**

(Fig. 1)

Size and shape.—Range, from 2.6 to 3.6 mm long, parallel-sided, about 2.5 times longer than wide. Females averaging smaller and less elongate than males.

Color.—Pitch black head, thorax, scutellum, triangular area at base of elytra, and sometimes extending along the midline of the elytra. Dull pale testaceous on remainder of elytra. Mouth parts and antennae black, with reddish tinge, darker than legs which are testaceous with reddish and blackish tints. In males, abdominal sternae are all black; in females, the anterior segments are black but a variable number of terminal ones are pale testaceous.

Pubescence.—Covered with fairly dense short decumbent and semidecumbent pale hairs. No erect flying hairs. Lateral fimbriae of pronotum and elytra, composed of longer whitish slightly curved hairs, irregular in orientation. Ventral abdominal hairs are snow white, coarser and more dense, obscuring the surface.

Head.—The head appears large, the occipito-temporal region broad and elongate. Mandibles, stout. These two features are definitive for males of this genus, but are absent in females. Between the antennal sockets in both sexes in this species is a conspicuous slightly arched cord-like ridge, designated the frontal cord. It bears no relation to the retraction of the labrum, and is more rugged in males than in females. The eyes are prominent, less bulging in males than in females.

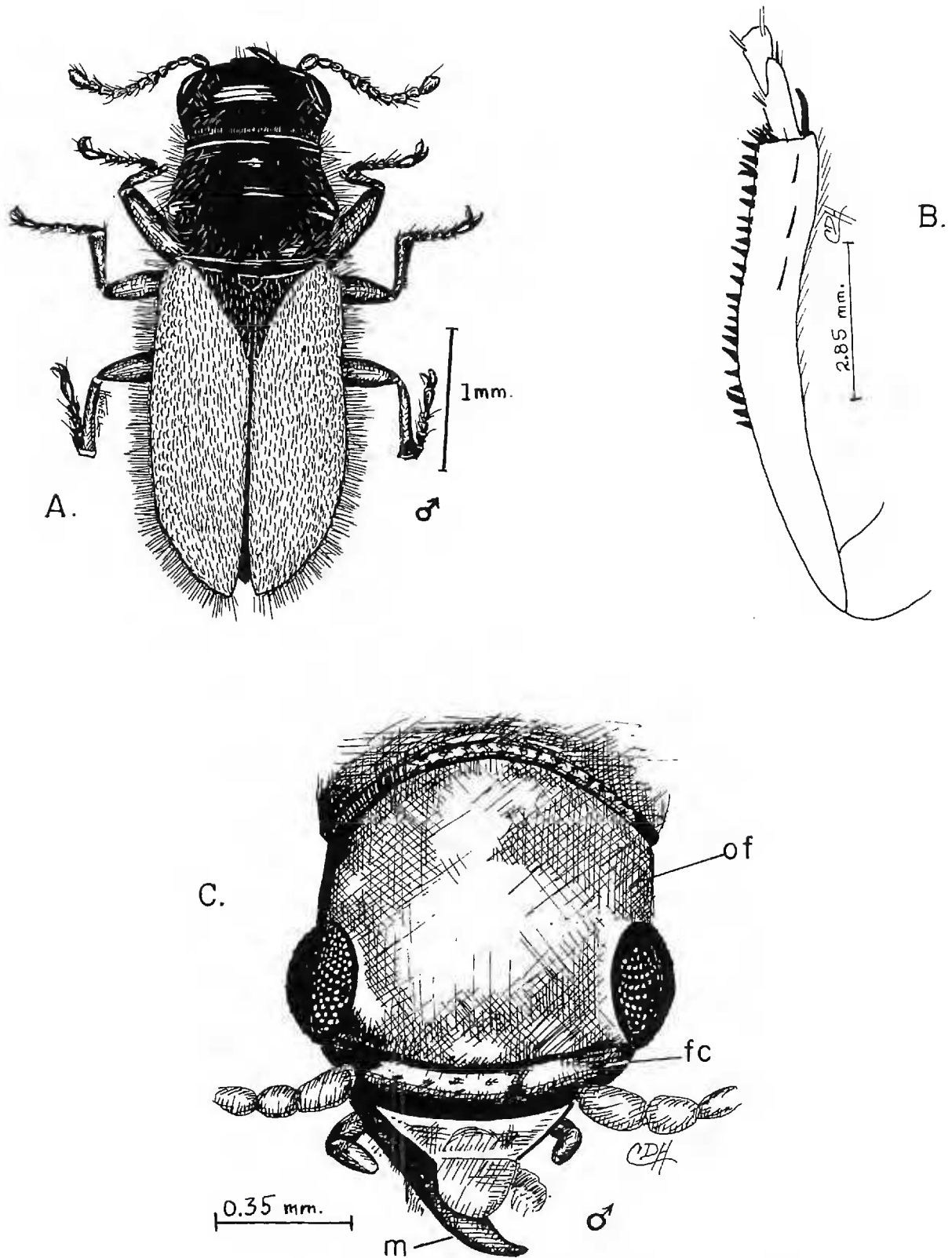


Fig. 1. A. Dorsal aspect of *Pristocelis irwini* new species, male. B. Protibia of *P. irwini* showing the comb of stout spinules on the outer posterior border. C. Head of *P. irwini*, male, showing elongated occipito-temporal area (ot), mandible (m), and frontal cord (fc).

Thorax.—Pronotum is large, transverse, oval, almost as wide just past the middle as the elytra at the humeri. At the widest point the lateral margins, from above, curve abruptly. Lateral margins are minutely serrulate.

Legs.—Protibiae expand abruptly from the delicate base, are slightly

curved, somewhat compressed, bearing in both sexes a striking single-file comb of 18 to 25 blackish stout spinules on their outer posterior borders. The tarsi have slender claws, dilated at the base, with slender unguis appendages the full length of the claws.

Elytra.—Humeri are moderately prominent, the contour posterior to them slightly narrowed and depressed dorsally, then gracefully curving, wider behind the middle, the lateral edges only slightly recurved. Epipleurae are broad, parallel briefly, then abruptly narrowing, extruded to the bend of the elytra.

The collection was made in November 1963 by Michael E. Irwin from flowers of *Palafoxia* and *Stephanomeria*. Thirty-seven specimens were collected south of Palm Springs, Riverside County, California; 19 in Coyote Canyon and 18 in Deep Canyon. I am pleased to name the species after Dr. Irwin for his numerous kindnesses to me in the past. The collection bears my numbers 2470–2506.

Holotype.—Male, No. 2476, from Deep Canyon. Allotype: No. 2482, from Deep Canyon. Paratypes: 16 males and 19 females.

The holotype and allotype are designated to be deposited in the type collection of the California Academy of Sciences. Duplicates are designated for the University of California collections in Riverside and Berkeley.

***Pristocelis volki*, new species**

Size and shape.—The range from 2.1 to 2.7 mm length makes this the smallest species of *Pristocelis*. Sexes overlap in size, but the largest are females, and the smallest are males, thus reversing the sexual dimorphism from that of other *Pristocelis*. Bodies, parallel-sided, slender, about 2.5 times longer than wide. In males the pronotum is much larger than in females.

Color.—In males, head pitch black, the color varying in its extent onto the face which is rufo-testaceous with black mandibles. Antennae, varying from pale amber at base to rufo-testaceous distally. Pronotum, with variable black, limited to a central spot, or a median line, or spreading, with testaceous lateral and sometimes anterior borders. Elytra, in both sexes, black with testaceous tips, the yellow variable in its forward extension.

In females, the head is variable from ruddy to yellow testaceous, lacking a black occiput. Pronotum, the same as in the male except for one specimen which is all bright testaceous.

The ventral sterna and legs are bright yellow-testaceous in both sexes.

Pubescence.—The body is covered with one kind of fairly dense, closely decumbent short creamy-white hairs. Pronotal fringes of irregular longer slender hairs. Elytral fringes not distinctive from hairs on the back. Ventral

hairs are dense clinging creamy-white hairs. In males the sexual segment is bracketed by conspicuous tufts of many long, straight, black hairs.

Head.—Large in males due to elongated occipito-temporal region. Eyes, slightly oval, bulging more in females than males. No frontal cord. Labrum, small and semicircular. Mandibles, large and stout, especially in males. Antennae, long in males, shorter in females, bristling with short blunt hairs.

Thorax.—Pronotum, transverse, widest about the middle. Apical border straight in females, more sinuate in males. Apical angles are impressed, basal angles lost in the even curvature sweeping from the widest part around the base. Lateral borders are minutely serrulate.

Legs.—Protibiae, somewhat wedge-shaped, with two slender distal spurs almost concealed by the long slender dark hairs on the anterior apical border. Comparable hairs on the meso- and metatibiae are even more prominent. A few (3–8) dark, stout spinules are scattered on the outer posterior borders of the pro- and mesotibiae. Slender tarsal claws with a basal dilation and appendages as long as the claws.

Elytra.—Slightly constricted and depressed behind the humeri, widest behind the middle. Epipleura are broad at base, narrowing abruptly, and disappearing at the bend of the elytra.

Ventral abdomen.—A sixth sternum is visible in both sexes. In males, it is centrally impressed and bracketed with tufts of long black hairs.

Fourteen specimens, bearing my numbers 1293 and 1314–1326, were collected by the author on flowers of *Eriogonum* east of Lake Elsinore, Riverside County, California, June 6, 1969. I am pleased to name this species after my wife who has been an invaluable assistant and constant companion on many happy collecting trips.

Holotype.—Male, No. 1293, Allotype: female, No. 1319. Paratypes: 5 males and 7 females with the same data.

The holotype and allotype are designated for deposit in the California Academy of Sciences type collection of insects. Duplicates are designated for the collections in the Departments of Entomology of the University of California at Riverside and at Berkeley.

Irwini and *volki* are similar in having bright testaceous color in part of the dorsal aspect, and in having similar epipleura—wide basally and tapering abruptly before the abdomen, then gradually to the end. *Grandiceps* and *vandykei* are similar in having the central bodies all dark (except for the terminal ventral abdominal sternum, possibly in females of *vandykei*) and in having similar epipleurae—wider basally, and tapering gradually to the end.

Irwini, *grandiceps* and *volki* are striking species. *Vandykei* is more difficult to identify as it lacks outstanding features possessed by the other three. *Irwini* has at least three prominent unique features: the pronounced frontal cord, the pale testaceous elytra with a dark triangular basal spot,

and the striking single file row of numerous stout spinules on the outer posterior border of the pro- and mesotibiae.

Grandiceps is outstanding for its dual pubescence with long erect black hairs. *Volki* is very small, and also has striking coloration. Its dark elytra with pale apices, and pronotum with at least testaceous borders and sometimes all testaceous, simplify its identification.

Key to Species in *Pristocelis*

1. Body length over 3 mm 2
 Body length averages under 2.7 mm *volki* new species
2. Body uniformly dark colored, lacking contrasting pale areas dorsally
 3
 Pronotum and/or elytra with pale areas on dorsal side 4
3. Dual pubescence, with long erect black hair
 *grandiceps* LeConte²
 One type of pubescence, more or less recumbent
 *vandykei* Blaisdell¹
4. Elytra pale, with dark triangular configuration at their bases; pro-
 tibial comb of 18–25 stout dark spinules *irwini* new species
 Elytra dark with pale tip; pronotum with pale sides at least
 *volki* new species

Footnotes

¹ Blaisdell, Frank E., Sr. 1924. Studies in the Melyridae (Coleoptera) III. Pan-Pac. Ent. I. 15–16.

² Casey, Thomas. 1895. Coleopterological Notices, VI. Ann. N.Y. Acad. Sci. VIII: 459–460.